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WE CLAIM:

1. An antimicrobial composition for sustained treatment of dental unit water comprising a substantially dry mixture of effective amounts of a quaternary ammonium compound, an oxidizing agent, and an antimicrobial metallic compound.  
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2. The composition of claim 1, wherein the quaternary ammonium compound is selected from the group consisting of n-alkyl dimethyl benzyl ammonium chloride, n-alkyl dimethyl ethylbenzyl ammonium chloride, n-alkyl dimethyl 3,4-  
10 dichlorobenzyl ammonium chloride, dioctyl dimethyl ammonium chloride, didecyl dimethyl ammonium chloride, cetyl pyridinium chloride, and combinations thereof.
3. The composition of claim 1, wherein the quaternary ammonium compound is present in a concentration of about 0.2% to about 40% by weight.  
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4. The composition of claim 1, wherein the quaternary ammonium compound is present in a concentration of about 0.5% to about 20% by weight.
5. The composition of claim 1, wherein the oxidizing agent forms hydrogen  
20 peroxide or a peroxyacid in solution.
6. The composition of claim 1, wherein the oxidizing agent is selected from the group consisting of sodium percarbonate, potassium peroxymonosulfate, sodium perborate monohydrate, sodium perborate hexahydrate, calcium hypochlorite, calcium  
25 peroxide, magnesium peroxide, urea peroxide, sodium chlorite, and combinations thereof.

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7. The composition of claim 1, wherein the oxidizing agent comprises sodium percarbonate.

8. The composition of claim 1, wherein the oxidizing agent is present in a  
5 concentration of about 0.2% to about 20% by weight as active oxygen.

9. The composition of claim 1, wherein the oxidizing agent is present in a concentration of about 0.5% to about 3% by weight as active oxygen.

10 10. The composition of claim 1, wherein the antimicrobial metallic compound is a silver compound.

11. The composition of claim 10, wherein the silver compound is selected from the group consisting of silver nitrate, silver nitrite, silver citrate, silver phosphate,  
15 silver benzoate, silver acetate, silver chlorate, silver chlorite, silver perchlorate, silver fluoride, silver sulfate, colloidal silver, and combinations thereof.

12. The composition of claim 10, wherein the silver compound is present in a concentration of about 0.02% to about 1.5% by weight as silver.  
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13. The composition of claim 10, wherein the silver compound is present in a concentration of about 0.05% to about 0.5% by weight as silver.

14. The composition of claim 1, further comprising a chelating/coordinating  
25 compound.

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15. The composition of claim 14, wherein the chelating/coordinating compound is selected from the group consisting of tetrasodium EDTA dihydrate, citric acid, sodium citrate, and combinations thereof.

5 16. The composition of claim 14, wherein the chelating/coordinating compound is present in a concentration of about 2% to about 75% by weight.

17. The composition of claim 1, further comprising citric acid.

10 18. The composition of claim 1, wherein the composition is in tablet form.

19. The composition of claim 18, wherein the quaternary ammonium compound is selected from the group consisting of n-alkyl dimethyl benzyl ammonium chloride, n-alkyl dimethyl ethylbenzyl ammonium chloride, n-alkyl dimethyl 3,4-  
15 dichlorobenzyl ammonium chloride, dioctyl dimethyl ammonium chloride, didecyl dimethyl ammonium chloride, cetyl pyridinium chloride, and combinations thereof.

20. The composition of claim 18, wherein the oxidizing agent forms hydrogen peroxide or a peroxyacid in solution.

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21. The composition of claim 18, wherein the oxidizing agent is selected from the group consisting of sodium percarbonate, potassium peroxymonosulfate, sodium perborate monohydrate, sodium perborate hexahydrate, calcium hypochlorite, calcium peroxide, magnesium peroxide, urea peroxide, sodium chlorite, and  
25 combinations thereof.

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22. The composition of claim 18, wherein the oxidizing agent comprises sodium percarbonate.

23. The composition of claim 18, wherein the antimicrobial metallic  
5 compound is a silver compound.

24. The composition of claim 18, further comprising a chelating/coordinating compound.

10 25. The composition of claim 18, further comprising citric acid.

26. The composition of claim 18, further comprising an effervescing agent.

27. The composition of claim 18, further comprising a disintegrating agent.  
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28. An antimicrobial tablet for the sustained treatment of dental unit water comprising effective amounts of a quaternary ammonium compound, an oxidizing agent, a silver compound, and citric acid.

20 29. The composition of claim 28, further comprising a compound that reacts with citric acid in solution to produce effervescence.

30. An antimicrobial composition for sustained treatment of dental unit water comprising a substantially moisture-free mixture of effective amounts of a  
25 quaternary ammonium compound, an oxidizing agent, and an antimicrobial metallic compound.

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31. An antimicrobial composition comprising:  
from about 0.2% to about 40% by weight of a quaternary ammonium  
compound;  
from about 0.2% to about 20% by weight as active oxygen of an oxidizing  
5 agent; and  
from about 0.02% to about 1.5% by weight as silver of a silver compound.

32. The composition of claim 31, comprising:  
from about 0.5% to about 20% by weight of a quaternary ammonium  
10 compound;  
from about 0.5% to about 3% by weight as active oxygen of an oxidizing agent;  
and  
from about 0.05% to about 0.5% by weight as silver of a silver compound.

15 33. The composition of claim 31, further comprising a  
chelating/coordinating compound.

34. The composition of claim 31, wherein the composition is in tablet form.

20 35. The composition of claim 34, further comprising an effervescing agent.

36. A method for causing sustained antimicrobial activity in a water supply  
comprising:  
providing a substantially dry composition comprising effective amounts of a  
25 quaternary ammonium compound, an oxidizing agent, and an antimicrobial metallic  
compound; and  
forming a mixture comprising water and said composition.

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37. The method of claim 36, wherein the mixture is formed in a dental unit reservoir.

5 38. The method of claim 37, further comprising cleaning the biofilms from the dental unit before forming the mixture in the dental unit reservoir.

39. The method of claim 38, wherein cleaning the biofilms from the dental unit comprises performing a shock treatment.

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40. The method of claim 36, further comprising introducing the mixture into a dental unit reservoir.

41. The method of claim 40, further comprising cleaning the biofilms from  
15 the dental unit before introducing the mixture into the dental unit reservoir.

42. The method of claim 41, wherein cleaning the biofilms from the dental unit comprises performing a shock treatment.

20 43. The method of claim 36, further comprising performing a dental treatment on a patient in which the patient comes in contact with the mixture.

44. The method of claim 36, wherein the mixture comprises:  
from about 0.2 mg/L to about 20 mg/L of a quaternary ammonium compound;  
25 from about 0.2 mg/L to about 20 mg/L as active oxygen of an oxidizing agent;  
and  
from about 0.02 mg/L to about 1.5 mg/L as silver of a silver compound.

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45. The method of claim 36, wherein the mixture comprises:  
from about 0.5 mg/L to about 10 mg/L of a quaternary ammonium compound;  
from about 0.5 mg/L to about 3 mg/L as active oxygen of an oxidizing agent;  
5 and  
from about 0.05 mg/L to about 0.5 mg/L as silver of a silver compound.

46. A method for causing sustained antimicrobial activity in a dental unit  
water supply comprising:  
10 providing a tablet comprising effective amounts of a quaternary ammonium  
compound, an oxidizing agent, a silver compound, and citric acid; and  
forming a mixture comprising water and at least a portion of the tablet.

47. The method of claim 46, wherein forming a mixture includes adding at  
15 least a portion of the tablet to a dental unit reservoir, further comprising allowing the  
mixture to effervesce.

48. The method of claim 47, wherein the mixture is ready for use in dental  
treatment within fifteen minutes after adding at least a portion of the tablet to the dental  
20 unit reservoir.

49. The method of claim 46, wherein the mixture is formed in a dental unit  
reservoir.

25 50. The method of claim 49, further comprising cleaning the biofilms from  
the dental unit before forming the mixture in the dental unit reservoir.

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51. The method of claim 50, wherein cleaning the biofilms from the dental unit comprises performing a shock treatment.

52. The method of claim 46, further comprising introducing the mixture into  
5 a dental unit reservoir.

53. The method of claim 52, further comprising cleaning the biofilms from the dental unit before introducing the mixture into the dental unit reservoir.

10 54. The method of claim 53, wherein cleaning the biofilms from the dental unit comprises performing a shock treatment.

55. The method of claim 46, further comprising performing a dental treatment on a patient in which the patient comes in contact with the mixture.

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56. The method of claim 46, wherein the mixture comprises:  
from about 0.2 mg/L to about 20 mg/L of a quaternary ammonium compound;  
from about 0.2 mg/L to about 20 mg/L as active oxygen of an oxidizing agent;  
and

20 from about 0.02 mg/L to about 1.5 mg/L as silver of a silver compound.

57. The method of claim 46, wherein the mixture comprises:  
from about 0.5 mg/L to about 10 mg/L of a quaternary ammonium compound;  
from about 0.5 mg/L to about 3 mg/L as active oxygen of an oxidizing agent;  
25 and  
from about 0.05 mg/L to about 0.5 mg/L as silver of a silver compound.



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58. A method for making a composition comprising:  
providing a quaternary ammonium compound;  
providing an oxidizing agent;  
providing an antimicrobial metallic compound; and  
5 forming at least the quaternary ammonium compound, oxidizing agent and  
antimicrobial metallic compound into a tablet.

59. An antimicrobial composition comprising a substantially dry mixture of  
effective amounts of a quaternary ammonium compound, an oxidizing agent, and an  
10 antimicrobial metallic compound.

60. The composition of claim 59, wherein the composition is mixed with  
water to form a solution suitable for oral ingestion by a patient.

15 61. The composition of claim 59, wherein the composition is formulated for  
sustained treatment of water.

20 62. The composition of claim 59, wherein the composition is effective  
against microbial contamination when mixed in water.

63. An antimicrobial composition comprising a substantially dry mixture of  
effective amounts of a quaternary ammonium compound, an oxidizing agent, and citric  
acid.

25 64. An antimicrobial composition comprising a substantially dry mixture of  
effective amounts of an oxidizing agent, an antimicrobial metallic compound, and citric  
acid.

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65. An antimicrobial composition comprising a substantially dry mixture of effective amounts of a quaternary ammonium compound, an antimicrobial metallic compound, and citric acid.